

**REMARKS**

Upon entry of the present response, no claims will have been amended, canceled, or submitted for consideration. Rather, Applicants respectfully request reconsideration and withdrawal of the outstanding rejection set forth in the above-mentioned Official Action. Such action is now believed to be appropriate and proper, based on the previous as well as based on the herein contained remarks, and is thus respectfully requested, in due course.

In the outstanding Official Action, the Examiner rejected claims 3, 4, 7 and 8 under 35 U.S.C. § 102(e) as being anticipated by WARKE (U.S. Patent No. 6, 566, 889). Applicants respectfully traverse the above rejection and submit that it is inappropriate with respect to the combination of features recited in each of Applicants' claims. In particular, Applicants respectfully submit that the cited reference contains a disclosure that is inadequate and insufficient to anticipate the combination of features recited in each of Applicants pending claims.

Initially, Applicants note that the claims pending in the present application are claims 3, 4, and 7-9. Claim 9 has been withdrawn from consideration in the present application based on the Election (without traverse) filed in the present application on May 30, 2008, that was filed in response to the Restriction Requirement set forth in the Official Action of May 9, 2008. In this regard, Applicants note that the office action summary, PTOL -- 326 indicates that only claims 3, 4, 7 and 8 are pending in the present application. Accordingly, Applicants respectfully request, in response to the present paper, that the Examiner explicitly confirm the continued pendency of claim 9 in the present application, although this claim has been withdrawn from consideration herein.

Applicants invention is directed to an ADSL modem apparatus as well as to a communication method for an ADSL modem apparatus. Utilizing the recitations of Applicants claim 3 as a non-limiting example of the present invention, the present invention is directed to an ADSL modem apparatus which includes an exchange unit that transmits and receives a REVERB signal according to one of the ITU-T standard G.992.1 and G.992.2, an estimation unit that estimates a communication distance to an opposing ADSL modem apparatus based on a reception level of the REVERB signal. A communication unit communicates by concentrating a signal energy into a low-frequency band, the signal energy being assigned to a transmission signal according to the communication distance estimated by the estimation unit.

It is respectfully submitted that the above-noted combination of features is not taught, disclosed, suggested or even rendered obvious by the disclosure of the WARKE reference relied upon by the Examiner. In this regard, although Applicants note that the rejection set forth by the Examiner is under 35 U.S.C. § 102, Applicants additionally submit that there is no reason for one of ordinary skill in the art to modify the WARKE disclosure so as to arrive at the combination of features that define Applicants herein recited invention. Accordingly, Applicants respectfully request reconsideration and withdrawal of the outstanding rejection, together with an indication of the allowability of all of the claims pending in the present application, in due course.

Initially, Applicants note that WARKE relates to transmission line diagnosis for wireline modems. Thus, since WARKE only deals with diagnosing line capabilities, it does not disclose any communication apparatus as recited in the present claims. Additionally, Applicants respectfully submit that WARKE does not disclose, in the claimed combination, assigning signal energy to a transmission signal according to the communication distance estimated by an estimation unit.

In setting forth the rejection, the Examiner asserts that the concentrating of signal energy into a low-frequency band with the signal energy being assigned to a transmission signal based on the estimated communication distance is disclosed in column 8, lines 55 - 65 of WARKE. Applicants respectfully submit that the Examiner's assertion is incorrect.

WARKE is directed to an apparatus to facilitate determining whether a high speed connection is based upon the characteristics of the transmission line serving the particular end-user. More particularly, WARKE provides an apparatus for performing diagnostics on a transmission line including a test signal generator for injecting test signals onto the transmission line, a signal calculating circuit for measuring and calculating spectral characteristics of the transmission line, an equivalent line length calculator coupled to the signal calculating circuit for calculating the equivalent line length of the transmission line utilizing the spectral characteristics of the transmission line. A cost function calculator calculates a cost function utilizing the spectral characteristics of the transmission line. A bridge tap detector determines the presence of a bridge tap (a common mechanism for attaching additional circuits to an existing transmission line) by comparing the output of the cost function calculator with a threshold.

The portion of column 8 to which the Examiner directed Applicants attention in the outstanding Official Action relates to figure 5 of the WARKE disclosure, which illustrates a data plot displaying measured transmission line channel responses as a function of frequency for bridge tap free transmission lines of various lengths. This data plot includes a test transmission line with bridge taps (CSA #4) and the measured channel responses are used to evaluate the performance of the line diagnostic device. However this portion of the WARKE disclosure contains no teachings whatsoever regarding concentrating of signal energy into a low-frequency band and certainly does not teach that the signal energy be assigned to a transmission signal

based upon the estimated communication distance. WARKE merely determines the presence of the bridge tap on the transmission line but does not teach the features of Applicants invention.

While figure 5 illustrates data plots for transmission lines having various lengths, this merely serves the purpose of comparing transmission line channel responses for lines of various lengths. Figure 5 does not teach, in the claimed combination, the communication unit as recited in Applicants' claim 3.

Moreover, and contrary to the Examiner's assertion, WARKE does not calculate or estimate a "communication distance to an opposing ADSL modem apparatus". Rather, WARKE calculates the "equivalent line length" of the transmission line. However the transmission line referred to by WARKE is between a central office (CO) and a modem of the end-user. The Examiner's attention is respectfully directed to the "length" in Fig 2. Thus, the equivalent line length discussed in the WARKE does not relate to a communication distance to an opposing ADSL modem apparatus but rather to a distance between a central office and the modem of the end-user.

In this regard, should the Examiner persists in his position that WARKE contains a disclosure of concentrating signal energy into a low-frequency band, the signal energy being assigned to a transmission signal based upon the estimated communication distance, the Examiner is respectfully requested to fully explain how this teaching is derived from the particular portion of the WARKE reference upon which he relies.

In view of each of the above noted shortcomings of the WARKE reference with respect to the recitations of Applicants' claims and certainly in view of the combination of all of the above-noted shortcomings and deficiencies of the WARKE reference with respect to the recitations of Applicants claims, Applicants respectfully submit that all the claims of the present

application are clearly patentable over the WARKE reference. An action to such effect is respectfully requested, in due course.

Moreover, not only is the WARKE reference inadequate, based upon its disclosure, for use as a reference under 35 U.S.C. § 102 as proposed by the Examiner, but it is also inadequate and insufficient to provide the evidentiary basis necessary for a rejection under 35 U.S.C. § 103. In this regard, Applicants respectfully submit that there would be no logical reason for modifying the disclosure of WARKE to include a communication unit as recited in Applicants' claim 3, in the claimed combination, at least since WARKE does not deal with communication, but with diagnosing the characteristics of a transmission line between a central office and a receiving modem to determine whether a high-speed connection can be established on such a transmission line.

Accordingly, Applicants respectfully submit that the pending claims in the present application are clearly patentable over the WARKE reference cited and applied by the Examiner, whether considered under 35 U.S.C. § 102 or even if considered under 35 U.S.C. § 103. An Action to such effect is respectfully requested, in due course.

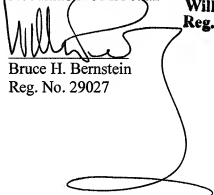
### **SUMMARY AND CONCLUSION**

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so. Applicants have not amended the claims in any manner. Rather, Applicants have traversed the Examiner's rejection and pointed out the numerous, significant and substantial shortcomings and deficiencies of the disclosure of the reference relied upon by the Examiner in the outstanding Official Action with respect to the combination of features defining the present invention. Applicants have discussed the disclosure of the reference and have compared the same with the features of Applicants invention. Applicants have additionally set forth the recitations of the present invention, as defined by the pending claims, and with respect to such recitations, have noted the deficiencies of the reference relied upon by the Examiner. Accordingly, Applicants have provided clear evidentiary bases supporting the patentability of all of the claims in the present application and respectfully request an indication to such effect in due course.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions or comments regarding this Response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,  
Nobuhiko NOMA et al.



Bruce H. Bernstein  
Reg. No. 29027

**William Pieprz**  
**Reg. No. 33,630**

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GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191  
(703) 716-1191